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10/666,475	09/19/2003	Rick Allen Kobbe	MINI 2543	8850

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EXAMINER	
YACOB, SISAY	
ART UNIT	**PAPER NUMBER**
2635	

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/666,475	KOBBE, RICK ALLEN	
	Examiner	Art Unit	
	Sisay Yacob	2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1 The application of Kobbe "Data recovery scheme in thermometer system" filed on September 19, 2003 has been examined.

Claims 1- 14 are pending

Rejections - 35 USC § 103

2 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3 Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US publication of Driessen et al., (20050010850) in view of US patent of Summers et al., (6,181,258).

4 As to claim 1, Driessen et al., discloses a transmitter unit (Page 2, Par. 0023, line 3; Item 110 of figure 1) comprising a sensor for generating a sensor signal having a characteristic that is representative of a variable (Page 2, Par. 0023, lines 1-Item 120 of figure 1), a measurement device for receiving the sensor signal (Page 2, Par. 0026; Item 111 of figure 1), repeatedly measuring said characteristic, and generating an output signal representing a succession of measured values of the characteristic (Page 2, Par. 0023, lines 4-6), a packetizer for receiving the measured values from the measurement device and generating a succession of transmission packets each including a more recently measured value and a less recently measured value (Page 3, Par. 0037; Item 114 of figure 1), and a transmitter for receiving the succession of transmission packets from the packetizer and transmitting the succession of transmission packets (Page 3, Par. 0038), however, Driessen et al., does not expressly disclose a more recently measured value that is included in an earlier packet is included in a later packet as the less recently measured value lines. In similar field of endeavor, Summers et al., discloses a more recently measured value that is included in an earlier packet may be included in a later packet as the less recently measured value (Col. 4, lines 10-14)

It would have been obvious, to one ordinary skill in the art, at the time of the invention, to modify the transmitter unit of Driessen et al., by incorporating the a more recently measured value that is included a less recently measured value, as discloses by Summers et al., in order to have wherein the more recently measured value that is included in an earlier packet is included in a later packet as the less recently measured value lines, because Driessen et al., discloses the transmitter unit that transmit frames containing information representative of successive measured temperature values and forward error correction transmission scheme (Page 3, Par. 0040) and Summers et al., discloses the usage or consumption data transmitted in each transmission may also include redundant data previously transmitted to improve reliability so that the module transmissions can be used for advanced monitoring. One of ordinary skill in the art recognize that incorporating the presiding a more recently measured value that is included in an earlier packet is included in a later packet as the less recently measured value lines improves accuracy and minimizes the number of transmission and power consumption.

As to claim 2, a transmitter unit according to claim 1, further, Driessen et al., discloses the packetizer repeatedly receives the most recently measured value from the measurement device and the immediately preceding measured value from the measurement device (Page 3, Par. 0037; Item 114 of figure 1).

6 As to claim 3, a transmitter unit according to claim 1, further, Driessen et al., discloses a control means for defining a succession of active intervals, and wherein the transmitter transmits the transmission packets during respective active intervals (Page 4, Par. 0050-0053).

7 As to claim 4, a transmitter unit according to claim 3, further, Driessen et al., discloses the control means divides each active interval into multiple telemetry slots and selects a telemetry slot for each active interval, and the transmitter device transmits the transmission packet during the selected telemetry slot (Page 3, Par. 0033-0034).

8 As to claim 5, a transmitter unit according to claim 3, further, Driessen et al., discloses the measurement device measures the characteristic once per active interval and the packetizer received a more recently measured value and a less recently measured value from the measurement device for each active interval (Page 3, Par. 0035).

9 As to claim 6, Driessen et al., discloses a receiver unit (Item 140 of figure 1) comprising a receiver for receiving a signal and recovering a sequence of bits from the received signal (Page 3, Par. 0039), a packet check means for determining whether the sequence of bits meets a predetermined standard and, if so, recovering a more recent datum from the sequence of bits (Page 3, Par. 0040, lines 1-11; Item 143 of figure 1) else entering a data recovery mode and

determining whether a sequence of bits subsequently recovered from the transmission signal meets said predetermined standard (Page 3, Par. 0040, lines 11-23; Item 144 of figure 1) and, if so, recovering both a more recent datum and a less recent datum from the subsequent sequence of bits (Page 3, Par. 0041-0042) .

10 As to claim 7, a receiver unit according to claim 6, further, Driessen et al., discloses the packet check means comprises a packet recognizer and a packet validator (Item 141 of figure 1), wherein the packet recognizer determines whether the sequence of bits includes a preamble sequence and, if so, passes a predetermined number of subsequent bits to the packet validator, and wherein the packet validator determines whether said predetermined number of subsequent bits includes an error-free payload (Page 4, Par. 0050-0053).

11 As to claim 8, a receiver unit according to claim 6, further, Driessen et al., discloses the packet check means determines whether the sequence of bits recovered from the received signal contains a payload that meets a predetermined standard by determining whether the sequence of bits includes a predetermined preamble sequence (Page 4, Par. 0050-0053).

12 As to claim 9, a receiver unit according to claim 6, further, Driessen et al., discloses the packet check means determines whether the sequence of bits

recovered from the received signal includes an error-free payload (Page 4, Par. 005).

13 As to claim 10, Driessen et al., discloses a telemetry system (Item 100 of figure 1) comprising a transmitter unit (Item 110 of figure 1) and a receiver unit (Item 140 of figure 1) wherein the transmitter unit comprises a sensor for generating a sensor signal having a characteristic that is representative of a variable (Page 2, Par. 0023; Item 120 of figure 1), a measurement device for receiving the sensor signal (Page 2, Par. 0026; Item 111 of figure 1), repeatedly measuring said characteristic, and generating an output signal representing a succession of measured values of the characteristic (Page 2, Par. 0023, lines 4-6), a packetizer for receiving the measured values from the measurement device and generating a succession of transmission packets each including a more recently measured value and a less recently measured value (Page 3, Par. 0037; Item 114 of figure 1), and a transmitter for receiving the succession of transmission packets from the packetizer and transmitting the succession of transmission packets (Page 3, Par. 0038), and the receiver unit (Item 140 of figure 1) comprises a receiver for receiving a signal and recovering a sequence of bits from the received signal (Page 3, Par. 0039), a packet check means for determining whether the sequence of bits meets a predetermined standard and, if so, recovering a more recent datum from the sequence of bits (Page 3, Par. 0040, lines 1-11; Item 143 of figure 1), else entering a data recovery mode and determining whether a sequence of bits subsequently recovered from the

transmission signal meets said predetermined standard (Page 3, Par. 0040, lines 11-23; Item 144 of figure 1) and, if so, recovering both a more recent datum and a less recent datum from the subsequent sequence of bits (Page 3, Par. 0041-0042), however, Driessen et al., does not expressly disclose a more recently measured value that is included in an earlier packet is included in a later packet as the less recently measured value lines. Summers et al., discloses a more recently measured value that is included in an earlier packet may be included in a later packet as the less recently measured value lines (Col. 4, lines 10-14)

It would have been obvious, to one ordinary skill in the art, at the time of the invention, to modify the telemetry system of Driessen et al., by incorporating the a more recently measured value that is included a less recently measured value, as discloses by Summers et al., in order to have wherein the more recently measured value that is included in an earlier packet is included in a later packet as the less recently measured value lines, because Driessen et al., discloses the telemetry system that transmit frames containing information representative of successive measured temperature values and forward error correction transmission scheme (Page 3, Par. 0040) and Summers et al., discloses a telemetry system that transmit the usage or consumption data transmitted in each transmission may also include redundant data previously transmitted to improve reliability so that the module transmissions can be used for advanced monitoring. One of ordinary skill in the art recognize that incorporating the presiding a more recently measured value that is included in an earlier packet is included in a later packet as the less recently measured value

lines improves accuracy and minimizes the number of transmission and power consumption.

14 As to claim 11, a telemetry system according to claim 10, further, Driessen et al., discloses the transmitter is a wireless transmitter and the receiver is a radio receiver (Page1, Par. 0005, lines 1-4; Page 2, Par. 0024, lines 7-9).

15 As to claim 12, Driessen et al., discloses a method of operating a telemetric transmitter unit (Item 141 of figure 1), that periodically measures the value of a parameter and periodically and sequentially transmits the measured values the method comprising measuring a first value of the parameter (Page 2, Par. 0023; Item 120 of figure 1), incorporating the first value in a first data packet, and transmitting the first data packet, and measuring a second value of the parameter, and transmitting the second data packet (Page 3, Par. 0037), however, Driessen et al., does not expressly disclose incorporating the second value and the first value in a second data packet. Summers et al., discloses incorporating the second value and the first value in a second data packet (Col. 4, lines 10-14)

It would have been obvious, to one ordinary skill in the art, at the time of the invention, to modify the method of operating a telemetric transmitter unit of Driessen et al., by incorporating a second value and the first value, as discloses by Summers et al., in order to have the method comprising measuring a first value of the parameter, incorporating the first value in a first data packet, and

transmitting the first data packet, and measuring a second value of the parameter, incorporating the second value and the first value in a second data packet, and transmitting the second data packet, because Driessen et al., discloses forward error correction method to improve accuracy of data transmission and Summers et al., discloses the method of operating a telemetric transmitter unit that incorporate previously measured and transmitted value to the currently measured and transmitted value to improve reliability of transmission.

16 As to claim 13, Driessen et al., discloses a method of operating a telemetric receiver unit (Item 141 of figure 1), the method comprising periodically receiving a signal and generating a sequence of bits therefrom (Page 3, Par. 0039), determining whether the sequence of bits includes a payload that meets a predetermined standard and, if so, recovering a more recent datum from the payload (Page 3, Par. 0040, lines 1-11; Item 143 of figure 1) else entering a data recovery mode, and in the data recovery mode receiving a signal and generating a second sequence of bits and determining whether the second sequence of bits contains a payload that meets a predetermined standard and, if so, recovering both a more recent datum (Page 3, Par. 0040, lines 11-23; Item 144 of figure 1), however, Driessen et al., does not discloses a less recent datum being recovered from the payload. Summers et al., discloses a payload that meets a predetermined standard and recovering both a more recent datum and a less recent datum being recovered from the payload (Col. 4, lines 10-14).

It would have been obvious, to one ordinary skill in the art, at the time of the invention, to modify the method of operating a telemetric receiver unit of Driessen et al., by incorporating the method for recovering a more recent datum and a less recent datum being recovered from the payload, as discloses by Summers et al., in order to have the method comprising periodically receiving a signal and generating a sequence of bits therefrom, determining whether the sequence of bits includes a payload that meets a predetermined standard and, if so, recovering a more recent datum from the payload else entering a data recovery mode, and in the data recovery mode receiving a signal and generating a second sequence of bits and determining whether the second sequence of bits contains a payload that meets a predetermined standard and, if so, recovering both a more recent datum and a less recent datum being recovered from the payload, because Driessen et al., discloses a method of operating a telemetric receiver unit that receives frames containing information representative of successive measured datum and forward error correction datum (Page 3, Par. 0040) and Summers et al., discloses a method of operating a telemetric receiver unit data received in each transmission may also include redundant data previously received to improve reliability so that the module reception can be used for advanced monitoring. One of ordinary skill in the art recognize that incorporating a method for recovering both a more recent datum and a less recent datum being recovered from the payload improves accuracy and minimizes the number of transmission and power consumption.

17 As to claim 14, Driessen et al., discloses a method of operating a telemetry system (Item 100 of figure 1) that comprises a transmitter unit (Item 110 of figure 1) and a receiver unit (Item 140 of figure 1), wherein the transmitter unit operates in accordance with a method that comprises measuring a first value of a parameter (Page 2, Par. 0023; Item 120 of figure 1), incorporating the first value in a first data packet and transmitting the first data packet, and measuring a second value of the parameter (Page 3, Par. 0037), and the receiver unit operates in accordance with a method that comprises periodically receiving a signal and generating a sequence of bits therefrom (Page 2, Par. 0026; Item 111 of figure 1), determining whether the sequence of bits includes a payload that meets a predetermined standard and, if so, recovering a more recent datum from the payload else entering a data recovery mode (Page 3, Par. 0039, Par. 0040, lines 1-11; Item 143 of figure 1), and in the data recovery mode receiving a transmission signal and generating a second sequence of bits and determining whether the second sequence of bits contains a payload that meets said predetermined standard and (Page 3, Par. 0040, lines 11-23; Item 144 of figure 1), however, Driessen et al., does not expressly disclose incorporating the second value and the first value in a second data packet and transmitting the second data packet, and recovering both a more recent datum and a less recent datum from the payload. Summers et al., discloses a method of operating a telemetry system that may be incorporate the second value and the first value in a second data packet and transmitting the second data packet, and recovering

both a more recent datum and a less recent datum from the payload (Col. 4, lines 10-14).

It would have been obvious, to one ordinary skill in the art, at the time of the invention, to modify the method of operating a telemetry system of Driessen et al., by incorporating the method for transmitting the second value and the first value in a second data packet to receive and recovering both a more recent datum and a less recent datum from the transmitted packet, as discloses by Summers et al., in order to have the second value and the first value in a second data packet and transmitting the second data packet, and recovering both a more recent datum and a less recent datum from the payload, because Summers et al., discloses a method of operating a telemetry system that may be incorporate the second value and the first value in a second data packet and transmitting the second data packet, and recovering both a more recent datum and a less recent datum from the transmitted packet and one of ordinary skill in the art recognize that incorporating a method for incorporating the pervious measured value and current measured value in a current data packet and transmitting the data packet and recovering both a more recent datum and a less recent datum being recovered from the received packet (payload) improves accuracy and minimizes the number of transmission and power consumption.

Conclusion

29 The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following cited arts are further to show the sate of art related to data recovery scheme in thermometer system.

In the US patent of (6,300,871) Irwin et al., discloses a multi-station RF thermometer and alarm system measures temperatures and/or percent relative humidity at remote locations by RF weather stations, and displays received temperature.

In the US patent of (6,020,830) Gannon et al., discloses an efficient and cost effective analog telemetry system for transmitting receiving many individual data channels over long distances is provided by having each data channel signal modulate a pseudo-random number (PRN) signal.

In the US patent of (20020166055) Powers et al., discloses a remote logger unit monitors various operating parameters of a distribution line, or transmission system, such as pressure, temperature.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sisay Yacob whose telephone number is (571) 272-8562. The examiner can normally be reached on Monday through Friday 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (571) 272-3068. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sisay Yacob

1/11/2006

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